

CATAWBA COUNTY'S GREEN INITIATIVES

Through daily practice, Catawba County promotes a culture among staff and the community of positively impacting our environment. Some of these activities are performed at an organizational level, while others are performed at an individual level. Following is a list of current green initiatives listed by County department.

Utilities and Engineering

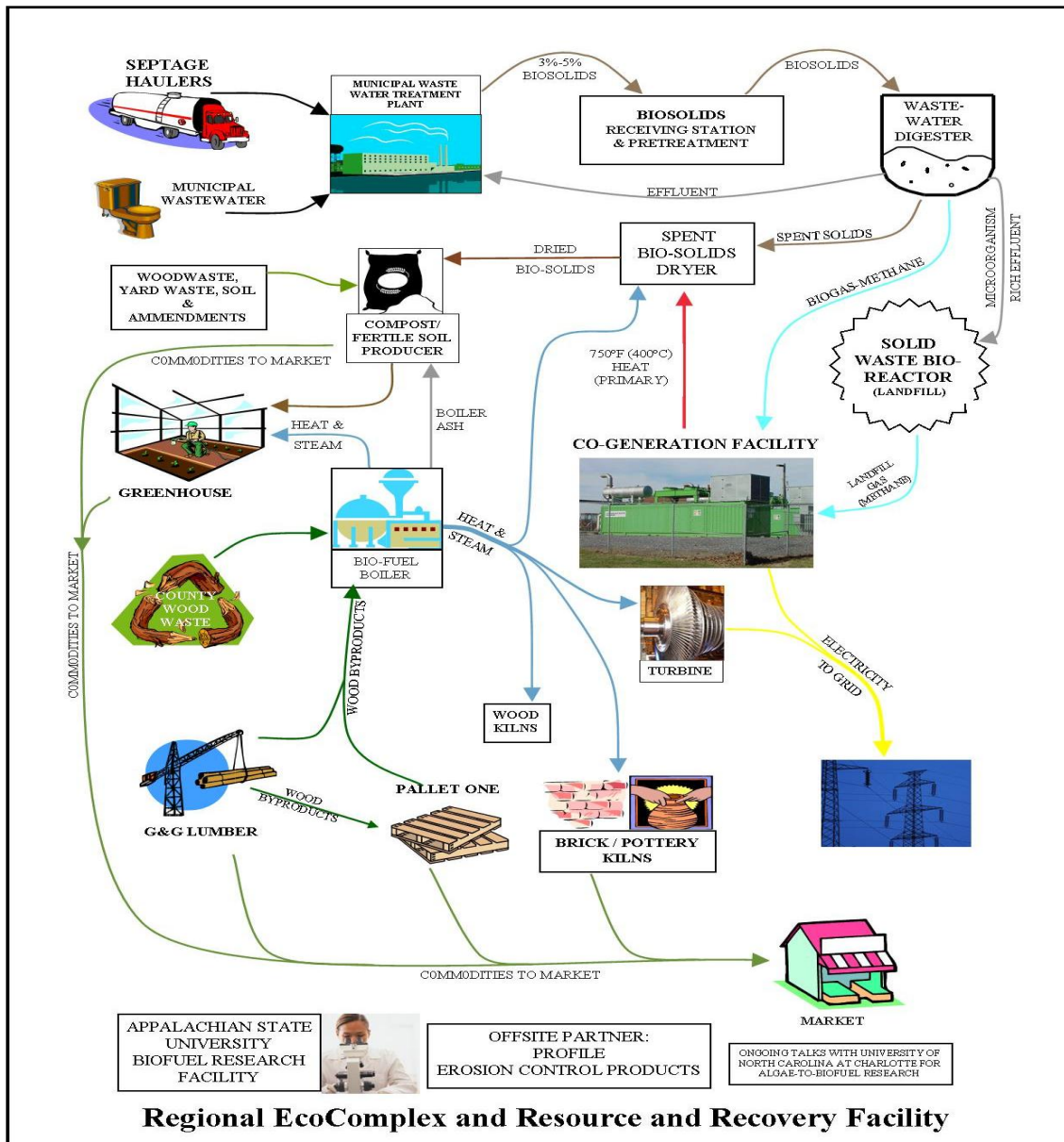
Solid Waste Division

- EcoComplex and Resource Recovery Facility
 - Quick Facts:
 - Turns bi-products into electricity, steam, and heat energy.
 - Turns bi-products into compost so that it can be used by the public.

Synopsis:

Catawba County's EcoComplex is a Renewable Energy Industrial Park combining energy production, businesses and waste management systems that consist of a landfill, electrical generating plant, bio-energy plant, sludge management facility, lumber, wooden pallet, brick, and pottery manufacturing facilities, a 100-acre greenhouse compound, and University Research Facilities/Partnerships and incorporates synergetic and beneficial relationships between industry byproducts and required manufacturing resources. The EcoComplex's fundamental goal is to promote and employ Catawba County's municipal solid waste and construction and demolition landfills as resource recovery facilities by converting waste streams into commodities and creating green energy through a virtually closed system. The system is designed to recover and employ all usable energy from EcoComplex entities' byproducts and waste streams. Landfill and livestock and agricultural waste digester gases are employed to produce electrical and heat energy. A bio-energy plant employs the green and renewable energy resources generated from woody waste from EcoComplex entities to generate electricity, steam, heat, and CO₂. The EcoComplex business system promotes economic development through byproduct/resource management and employing predominantly green and renewable energy.

Catawba County captures the gases generated from the natural process of bacterial decomposition of organic material contained in its Blackburn MSW landfill. The County's Landfill Gas to Energy Facility is made up of three landfill gas (methane) burning engine/generator sets that have the capacity to generate approximately 3 Megawatts of electricity per hour; this is enough electricity to power approximately 900 to 1,000 average sized homes. Catawba County currently sells the electricity to Duke Energy with annual sales averaging \$550,000.



- The Blackburn Landfill recycles all used motor oil, transmission fluid, and antifreeze from heavy equipment and landfill gas cogeneration engines.
- Extensive recycling program which includes whitegoods, metals, used tires, and wood and yard waste. Other recycling activities occur through residential curbside services, county residential convenience centers, biannual household hazardous waste pick-up, and one-day collection events.
- Recycle incentives for businesses and municipalities including a diversion credit for each ton of recyclables collected by municipalities applied against their solid waste bills if they maintain an effective recycling program. Cities receive a \$25 credit towards waste disposal fees at the County's landfill for every ton of recyclable materials received at a County-approved Materials Recovery Facility.
- Ranked in the top five counties within North Carolina for recycled materials per capita for the last six years and ranked second for the past two years. Catawba County was the first County in North Carolina to provide curbside recycling countywide. Catawba

County is currently recovering 720 pounds of recyclables per capita, which is approximately 20% by waste stream volume.

- Conducts recycling assessment on Catawba County Schools, County buildings, and businesses biannually or when needed due to operational changes.
- Funds environmental education programs throughout the county (e.g. EcoComplex/landfill tours, presentations to schools, civic organizations and businesses).
- Offer Business Recycling and Waste Reduction Partnership certification program to businesses within Catawba County. This program is designed to provide members of the Commercial sector with information regarding the benefits that a Waste Reduction and Recycling Program can provide to their business and the community. During the program the County works with the entity to determine recyclables and assists with matching up to recycling companies and markets. A certificate is provided to the business showing their participation in the program.

Building Services Division

- The County is in the process of implementing an incentive-based fee structure intended to promote and increase renewable/sustainable energy technologies and green building certifications for homes and commercial buildings in Catawba County. The Green Building Incentives fee structure is a rebate program that provides the **New Structure Builder/Owner** a limited 25% reimbursement (not to exceed \$500) on their permit(s) ensuing a Certificate of Occupancy (CO) issuance and with approved Green Building certification, which includes but is not limited to LEED, Energy Star, and/or NC HealthyBuilt Homes programs, by a third party inspection agency.

The Green Building Incentives fee structure provides the **Existing Structure Owner** a 50% permit(s) reimbursement with an approved Green Building certification, which includes but is not limited to elements within the LEED, Energy Star, and/or NC HealthyBuilt Homes certification programs. Building Services staff will certify renovations in the permitting process.

The Green Building Incentives fee structure will also provide the **New Structure Builder/Owner** a 50% reimbursement of all fees related to plan review or express plan review for commercial buildings ensuing an approved Green Building certification by a third party inspection agency, which includes but is not limited to elements within the LEED, Energy Star, and/or NC HealthyBuilt Homes certification programs.

- Mobile technology has allowed the Building Services Division to go nearly paperless.

Catawba County Schools

- Will be constructing Snow Creek Elementary with new energy efficient materials. These materials will allow Snow Creek to operate 40 to 45 percent cheaper than the last elementary school that was constructed, which was built in 2006. This project has been

designed to meet LEED for Schools criteria and should qualify for the silver level. Once certified, it will be one of the first schools in North Carolina to achieve certification.

Emergency Services

- Printing only when necessary.
- Office staff in all divisions car pool when possible.
- Staff in all divisions shut down electrical devices when not in use.
- We are all trying to reduce our travel by leveraging technology when possible.
- We are working with the (UASI) Urban Area Strategic Initiative to connect the 9 counties together through the use of teleconferencing. This will allow many possibilities that will result in reducing the need for face to face meetings.
- The office has been working with budget to find a hybrid solution for our fleet. So far we have been unsuccessful but are still researching the topic. EMS is looking into a solar panel assist for the ambulances but we want to watch the success of a proto-type before moving forward. They will be watching it for the next year.
- We are in the process of completing a feasibility study regarding the animal shelter. The study will show new building versus addition renovation of the current structure. Regardless of the decision we are requiring the building be LEED certified.
- The animal shelter uses environmentally friendly chemicals to disinfect and clean the shelter. We also use recycled litter boxes for the cats.
- The fire Rescue division is currently scheduling inspections in geographical groups to reduce unnecessary travel and fuel consumption.
- All divisions recycle paper and other items when we can.

Finance Department

Purchasing Division

- Process electronic purchase orders to reduce printing and mailing costs.
- Purchase office supplies and products from a vendor that offers a green catalog.
- Request that all contractors and vendors within the County use materials that are environmentally friendly and dispose all of their unused materials in accordance with the regulations of the EPA or DEHR.
- Scan all county contracts into an imaging system to reduce printing costs.

Maintenance Division

- Replacing all T-12 light fixtures with T-8 fixtures (documentation shows the T-8 fixture is 40 percent more efficient) over several years.
- As incandescent light bulbs burn out, the division replaces them with the newer fluorescent energy saving light bulbs.
- Schedule with all departments a time during the day when air conditioning units can be turned off to conserve energy.
- Work with the North Carolina Cooperative Extension to assure that the County continues to use environmentally friendly mulch, herbicides, and pesticides for all County facilities.

- Continue to use biodiesel fuel in County vehicles and continue to investigate alternative fuels for non-diesel County vehicles.
- Capturing rainwater at maintenance facility for landscape irrigation.
- Implemented a new work order tracking program that has reduced the departments' use of paper and gas.
- Installed water-saving plumbing fixtures in Government Center.
- Installed remote temperature controls for HVAC system in Government Center.

Human Resources

- Staff recycles and are working towards a paperless office. By offering online benefits, pay information, benefit enrollment, and online information on benefits we have cut printing by thousands of pages.

Library System

- The Sherrills Ford Branch Library:
 - Captures rainwater in rain barrels for landscape irrigation.
- The Southwest Branch Library:
 - Maintain ink cartridge and cell phone containers for the public to drop off those materials to be recycled.
 - Rarely purchase cans but recycle them when we do.
 - Turn off lights in the auditorium, kitchen and branch manager's office when they are not in use.
 - Shut down computers and copiers at the end of each day.
- St. Stephens Branch Library:
 - Recycle old newspapers and magazines.
- Main Library, Newton
 - Recycle newspapers, magazines, many types of paper, cardboard, cans, plastic bottles.
 - Whenever possible, print on both sides of the paper.
 - Many staff use ceramic coffee mugs, real silverware, plates and bowls to cut down on the amount of styrofoam cups and paper goods that we use.
 - As incandescent light bulbs burn out, the division replaces them with the newer fluorescent energy saving light bulbs.
 - Staff are asked to turn off lights in the public service workroom, storage room, and auditorium when those spaces are not being used.
 - To improve air quality, some staff who live far from the library work flexible schedules to limit the number of times that they have to drive to Newton for work.
 - Staff at Main Library have presented story programs for preschoolers on:
 - Recycling and helping keep the earth clean.

- "Hug a Tree" – guest park rangers will (4/24) teach children why trees are good for the environment and give them a free pine tree to take home and plant.
- Daycares can check out a storytime book crate called "Our Earth" to teach children how to care for the earth.

North Carolina Cooperative Extension

- Conducts workshops that increase knowledge and awareness of energy conservations and improving environmental stewardship. The Cooperative Extension has conducted the following workshops:
 - Hazardous Household Products and Furnishings - This program was conducted for homeowners, school employees, and day care centers.
 - Saving Energy in Your Home - This program was conducted for homeowners, potential Habitat for Humanity homeowners, older adults, single adults, and students.
 - Saving Money at the Gas Pump - This program was conducted for community associations and older adult groups.
 - 4-H2O - Water Conservation Education - This program was conducted for a working group, which resulted in mailers being sent to 18,000 water consumers.
 - Developing Community Gardens - This program was conducted for homeowners' associations.
- Dispensed and presented information at events throughout the county. The following is an example of some of the events, newspapers, and newsletters where the Cooperative Extension dispersed information:
 1. Home and Garden Show at the Metro Center
 2. Hickory American Legion Fair
 3. River Fest
 4. County Employees Benefits Fair
 5. Senior Health Fair
 6. Soldiers Reunion
 7. Area schools
 8. Catawba Valley Neighbors
 9. Claremont Courier
 10. Hickory Daily Record
 11. Observer News Enterprise
 12. Outlook
 13. Family and Consumer Sciences Newsletter
 14. Catawba Spirit
- Created Catawba Green blog on Catawba County website. The website provides tips for home and workplace energy conservation.
- Collaborated with the City of Hickory to develop an Adopt-a-Street Program.
- Donated trees to fire departments to encourage tree planting.
- Implemented the Carolina Yards and Neighborhoods program to educate homeowners about stormwater, landscape design, plant selection, and appropriate use of pesticides and fertilizer.

Planning & Development Department

- Requires new subdivisions set aside open space or pay a fee, which will help fund parks in the county.

Parks Division

- Host and sponsor a litter sweep team of volunteers twice a year which cleans up over 1.5 miles of shoreline at Oxford Dam and Riverbend Park.
- Host environment education and stewardship programs for over 5,000 participants per year.
- Manage over 600 acres of natural habitat. Within the 600 acres are wildlife food plants, riparian buffers, and managed forest areas that protect soil from erosion, and improve air and water quality.
- Administer pesticide and inorganic fertilizer free landscapes and facilities.
- Catawba Valley Community College and Lenoir Rhyne University use Riverbend and Bakers Mountain Parks for environmental research.
- Many parks materials were developed from recycled materials (e.g. picnic tables are made from recycled plastic lumber).

Public Health Department

- Perform environmental awareness contest. The following are a few of the contests:
 - Ozone Contest - Promotes air quality friendly practices for Catawba County employees. (http://www.surveymonkey.com/s.aspx?sm=4S60zMizeuIoB_2fNtr_2b5_2bOQ_3d_3d)
 - Air quality question of the month - Heighten awareness of air quality issues for Catawba County employees.
 - Leadership Catawba County Contest - Encourages Catawba County leaders to adopt environmentally friendly practices.
- Organize Early Action Compact Program, which addresses air quality issues in Catawba County.
- Perform tours for second graders from around the County in the Public Health Department offices. During the tour, air quality awareness is discussed with the children.
- Put into operation an air quality committee that educates the public on air quality issues through press releases, community presentations, and Catawba County e-newsletter.
- The "last one out-lights out," i.e., whoever leaves last in the evening turns out the lights.

Register of Deeds

- Purchasing from vendor who offers green catalog
- Recycling in desk side containers for staff and public
- Recycling batteries, cell phones, and chargers with these types containers in office for the staff and public
- Imaging documents to reduce printing
- Employees shut down all copiers, computers & monitors at the end of the work day
- Unplugging appliances when not in use
- Reusing the back side of non-confidential paper

- 🌱 Changing schedule for mail and bank deposits to conserve fuel
- 🌱 The “last one out-lights out,” i.e., whoever leaves last in the evening turns out the lights
- 🌱 Working towards a paperless office. By offering documents and indexing online which has cut printing of pages by the thousands
- 🌱 Recycle newspapers, magazines, cardboard, cans, plastic bottles.
- 🌱 Staff uses ceramic coffee mugs, real silverware, plates and bowls to cut down on the amount of Styrofoam used within office
- 🌱 Purchase office supplies and products from a vendor that offers a green catalog
- 🌱 We print double-sided to reduce the usages of paper
- 🌱 We print on half sheet to reduce the usages of paper
- 🌱 Purchase of refillable ink pens and correction tape
- 🌱 Recycle printer cartridges

Social Services

- 🌱 Using recycled toner when available for printers and fax machines.
- 🌱 Purchasing from vendor who offers green catalog.
- 🌱 Removing all lights from vending machines.
- 🌱 Recycling in desk side containers.
- 🌱 Recycling batteries, cell phones, and chargers.
- 🌱 Using task lighting vs. overhead lighting when possible.
- 🌱 Replacing incandescent bulbs with compact fluorescent bulbs.
- 🌱 Imaging documents to reduce printing.
- 🌱 Purchasing copiers with scan to network feature to reduce printing.
- 🌱 Requesting employees shut down computers at the end of the work day.
- 🌱 Unplugging appliances when not in use.
- 🌱 Using old paper for art projects.
- 🌱 Using earth friendly cleaning products.
- 🌱 Changing telephone book distribution from mass to as needed.
- 🌱 Reusing the back side of non-confidential paper.
- 🌱 Carpooling for meetings.
- 🌱 Changing schedule for mail and bank deposits to conserve fuel.
- 🌱 Managing HVAC use with temperature ranges.
- 🌱 Transporting clients via carpool when feasible.
- 🌱 Limiting landscaping of perennials for water conservation.
- 🌱 Installing blinds to manage afternoon sun.
- 🌱 Keeping storm drains free of debris.
- 🌱 Performing weekly inspections for leaks and drafts.

Technology Department

- 🌱 Donate old functional computers to school children that do not have home computers.
- 🌱 Send old computer equipment to a company that recycles electronic devices.
- 🌱 Exchange CRT computer monitors with LCD monitors when computers are replaced.
- 🌱 Provide computer applications at employees' homes, so they can complete required paperwork without having to drive to their office.
- 🌱 Virtualization and server consolidation.
- 🌱 Comprehensive telecommuting policy and enabling technologies for working anywhere.
- 🌱 Initiated “Think before you print” campaign.

- Web/video conferencing to reduce mileage costs.

Other Catawba County Activities

- Ranked in the top five counties within North Carolina for recycled materials per capita for the last six years and ranked second for the past two years.
- Created a buy recycled policy for all departments, employees, and buyers.
- Tracks the annual purchases of recycled content goods and products.
- Asks all staff to turn off their electronic equipment when they leave work.
- Operates 12 hybrid vehicles.
- Catawba County has also launched an initiative to quantify our carbon footprint and develop benchmarks to assess progress in meeting reduction goals.